

the RARS **Exciter**

Raleigh Amateur Radio Society



Worldwide Friendship

April, 2003 Number 385

RARSfest



Photo by Gary KN4AQ

2003

Fred N4IXL and Cyndi KD4ACW shows the best way to cover the RARSfest



The Exciter

The **Exciter** is the monthly newsletter of the Raleigh Amateur Radio Society. It is available in both printed and electronic form. The printed version is mailed to members just before each club meeting. The electronic form, in Adobe Acrobat PDF format, is e-mailed about a week earlier.

We solicit both articles and advertising. The deadline for submissions is first Friday of the month or Friday after the monthly meeting. Contact the Editor.

The views contained in the Exciter are those of the individual authors, and are not necessarily the views of the Editor, or the Raleigh Amateur Radio Society.

The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the Amateur Radio community in the greater Triangle area. In 1999, we incorporated a new RARS, and obtained 501(c)(3) Non-Profit tax status.

The objectives of the club are to promote worldwide friend-ship through Amateur Radio; to be of public service by providing radio communications in times of disaster, emergency, or civic need; to educate members in radio technique; and to provide training classes to assist in obtaining Amateur Radio licenses.

Anyone interested in Amateur Radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18.00 per year (from July 1 through June 30). Additional immediate family members pay \$5.00 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12.00 per year. Dues for non-licensed Associate members are \$9.00 per year.

Applications for membership may be obtained from the treasurer, or the RARS web site (www.rars.org).

Officers

President:	Bernard Blackmon W4BRB 919-467-8719 bernardb@mindspring.com
Vice-President:	Andy Peterson NI4S 919-845-6251 ni4s@arrl.net
Secretary:	Jim Walter KG4FIJ 919-468-5358 jwalter@nc.rr.com
Treasurer:	Greg Seamster KE4PAX 919-859-0029 ke4pax@arrl.net
Exciter Editor:	Denyse Walter KG4CXR 919-468-5358 kg4cxr@nc.rr.com



INFO

RARS Repeaters in Raleigh:
145.13
146.64
224.64
444.525 (88.5 PL)

WEB SITE <http://www.rars.org>

NEXT RARS MEETING:
April 4, 2003
The Cable TV System
(Guest speaker Mark Clark)

MAY MEETING WILL BE
MAY 13, 2003 PLEASE MARK
YOUR CALENDAR

RALEIGH AMATEUR RADIO SOCIETY MEETINGS

Date: *Every first Tues of the Month*

Location: *Forest Hills Baptist Church, at Dixie Trail and Clark Avenue, in Raleigh*

Time: *7:30pm, Folks start showing up a bit before 7 to chat, brag and eat donuts.*

VE TESTING: *The RARS VEs will accept walk-in testing which is on even months except April and December. Please bring a photo ID, your original current license if you have one, and any CSCEs you need for credit.. Check into the 8:00 pm net every night on the 146.64 repeater or www.rars.org for information.*

EVENTS

**EVENTS ARE COMING UP PLEASE
LISTEN TO THE NETS FOR MORE
INFORMATION!**

MAY RARS MEETING
WILL BE ON 2ND
TUES MAY 13

The *MAY* RARS meeting will be held on the 2nd Tuesday, May 13, This move is for May 2003 only, at the request of our host, the Forest Hills Baptist Church. The church has a large conference scheduled for the first Tuesday that requires all the large meeting rooms. RARS will maintain its regular 1st Tuesday date for all other meetings.

HELP WANTED

Have you ever wanted to be a writer for a newspaper column? We're looking for a reporter for ham related articles every month for the RARS Exciter. Please contact the Exciter Editor if you're interested.

**SPECIAL REQUEST FOR ASSISTANCE
WITH RADIO NEWS HOUR**

We are looking for someone to share responsibilities for playing the ARRL Radio Newshour every Sunday following the 8 PM net. The equipment needed for this is an interface between your computer and radio, such as a Rigblaster, as well as software to play a MPEG file. If you have questions or would like to volunteer, please contact Liz KF4UQZ or Mary KG4OQA.

All RARS members can obtain a membership card by calling Denyse KG4CXR 919-468-5358 or email KG4CXR@nc.rr.com

FM Committee – RARS Tech Support meetings are held on the 5th Tuesday of any month that has 5 Tuesdays. Meetings are held at Danny Musten's office (KD4RAA)

**146.88 145.39, 147.105, & 147.135
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**More info on PCRN:
[Http://www.pcrn.net](http://www.pcrn.net)**

The Raleigh Amateur Radio Society is now accepting credit card payments online for new members and membership renewals. You can join or renew your membership completely online using a secure credit card payment process.

See the RARS website www.rars.org for more information to sign up for RARS membership or renew for 1, 2 or 3 years

COMING SOON – Raleigh Amateur Radio Society Hamfest

RARSFest

The 31st annual RARSFest will take place on Sunday April 13th, 2003. Again this year it will be all inside at the Jim Graham Building at the North Carolina State Fairgrounds in Raleigh, NC. The hamfest committee has already been busy for several months and has put together what promises to be a great event. Now is the time for everyone to start spreading the word about our great hamfest. If you attend other club meetings, participate in any nets, regardless of whether they are about traffic, fishing, or cooking – If you do anything where you have a chance to talk to other hams or electronic enthusiasts, please help spread the word about our club's hamfest. And if you know anyone who might be interested in a flea market table, or vendor/dealer table, pass their information to Chuck Littlewood for dealer booths, or Jeff Wittich for flea market tables. Let's all pull together and make this year's RARSFest bigger and better than ever. We took flyers and pre-registration tickets to FrostFest again this year and ticket sales were good again this year. Lets hope that is a sign of things to come for RARSFest.

As always, there is plenty of work to be done on the weekend of the fest. Setup starts on Friday and continues through Saturday until everyone gets a chance to relax a bit and enjoy Mary Jo Littlewood's great social-supper. Then there is plenty of opportunity to help out on Sunday. We will have a worker incentive drawing again this year and each two-hour shift you work on hamfest weekend gets one entry in the drawing. Because RARSFest is our own, our first priority is to get the work done – but if we all pitch in a few hours there will be plenty of time for everyone to enjoy the fest and still get the work done. Please visit <http://rars.org/hamfest/helpwanted.html> to sign up for the position you would like to fill.

Here are some RARSFest facts you can brag about to anyone who will listen:

RARSFest is one of the few hamfests that increased attendance last year.

RARSFest is the largest hamfest in the northern piedmont area of NC with average attendance of around 2500 paid admissions.

This year Dan Henderson, N1ND, ARRL Contest Branch Manager will be in attendance. This means that any and all DXCC cards may be checked - including deleted, 160 Meters and cards older than 10 years.

RARSFest is all indoors, held in a 100,000 sq. ft facility offering an attractive fully equipped dealer booth and vendor area as well as over 400 tables in our all indoor flea market.

And don't forget:

- RARSFest parking is free.
- Major prize drawing is for an ICOM 706 Mk-II-G HF/6m/2m/70cm Transceiver
- One ICOM 207-H 2m rig will be given away each hour from 11am through 2pm.
- A \$125 pre-registration drawing.
- Walk in VE Test Session on Sunday morning.
- Contests (with prizes) for Homebrew, QLF, and yes, QBH again this year.
- Various Forums and Meetings.
- DXCC QSL card checking by QSL Manager Bill McDowell, K4CIA
- Saturday evening social/supper
- Full RV / camper hookup is available

For details see the RARS web page at <http://rars.org> and click on the hamfest link, or contact Hank Montgomery - K4HM@arrl.net, phone (919) 577-1254.

MINUTES OF THE RARS BOARD MEETING, TUESDAY, JAN 21, 2003

The RARS board meeting was held at Forest Hills Baptist Church on Tuesday, Jan 21, 2003. Members present were: AB4OZ, AC4ZO, K4HF, K4HM, KE4PAX, KG4CXR, KG4FIJ, KN4AQ, NI4S, W8HYD, W4BRB, and WA2UZO. Total present: 15

The meeting was called to order by President Bernard Blackmon W4BRB at 7:35 PM, and new board members were welcomed.

On motion by K4HM, second by KN4AQ, the October 2002 board meeting minutes were approved. On motion by NI4S, second by KN4AQ, the November 2002 board meeting minutes were approved.

Treasurer's Report (KE4PAX): We currently have 285 members.

V.P. Report (NI4S): Seeking ideas for future general meeting programs.

FM Committee (W4BRB for KA2FWC): Discussed ongoing repeater activities and projects. 145.13 repeater will be up and running soon. Future plans include a 220 repeater.

Exciter (KG4CXR): Working on March 2003 issue. Looking for editorial input.

Net Manager (W4BRB for KG4OQA): Nets are going very well.

Webmaster (WA2UZO): Online dues payment process is up and running.

Membership Services (KG4CXR): No report.

Hamfest (K4HM): Tickets and flyers will be ready soon. Table registration now available online, and Tim W4NOT is working on setting up sign-up/scheduling online.

Field Day: No report.

Public Information (KN4AQ): Showed a 7-minute video produced by ARRL. The Raleigh Ski and Outing Club has requested we make a presentation at their next meeting. KN4AQ will arrange this.

Education (KN4AQ for W4NOT): Next RARS Technician Class starts first Monday in March, and will go 6 weeks.

VE Team (W4BRB for KO4CK/WA4GIR): No issues to report.

Public Service (W4BRB for K1RCB): Contact has been made with M.S. and Diabetes organizations. No events locked in yet.

ARRL Liaison (K4HF): Spoke about ARRL online courses and encouraged all to take a course in 2003.

Nominating Committee: No report.

W4DW/W4RNC Trustee (AC4ZO): No issues.

Special or Ad Hoc Committees: None.

New Business:

WA2UZO inquired about releasing all 2002 issues of the Exciter from the members' area of the RARS website to the open (public) area. KN4AQ moved, and K4HM seconded, to put all issues of the Exciter on the open (public) area of the RARS website. After discussion a vote was taken: 11 for and 1 against. Motion passed with majority.

WA2UZO asked for discussion on awarding "star" points on the public service page for completing Red Cross courses. Discussion ensued. Nothing resolved.

W4BRB received a request from Israel for financial help to send Camille to Handi-Ham Camp in California. More information is needed pertaining to costs. W4BRB assigned W8HYD to get more information. Tabled until next meeting.

KG4HDT (guest) briefed the board on plans for a statewide and state-funded amateur radio emergency network, with digital stations at Stanley County, Raleigh, and Kinston. Asked for the Club to purchase a specialized TNC for state use, and provide training resources and guidance. Cost of the TNC is approximately \$1,100.00. Matter was tabled pending a formal, written presentation by KG4HDT at the next board meeting.

Board Member Comments:

K4HF thanked the club for condolences expressed when he recently lost his mother.

K4HM informed that VE testing fee was increased to \$12.00.

On motion by AC4ZO and second by NI4S, the meeting adjourned at 9:26 PM.

ANTENNAS - PART 2

By Max KO4TV

In last month's article, we discussed some things to beware of in extravagant claims by antenna manufacturers and vendors. This month, we will discuss various types of antennas used by Hams, and the relative pros and cons of each. Probably the antenna most widely used by Hams is the "Rubber Duck" antenna, used with almost all hand-held radios. From a standpoint of gain and efficiency, this is a horribly inefficient antenna! Why, then, is it so widely used? The answer in one word is: "Convenience"!

While the typical "Rubber Duck" has a net LOSS of several dB when compared with a half-wave dipole, it is nonetheless very convenient and compact. For comparison, a half-wave dipole on 2m would be about 38 inches long, and on 70cm would be about 13 inches long. Even a quarter-wave vertical antenna for 2m would be about 19 inches long, and while some hams indeed use a quarter wave on 2m portables, it is still somewhat bulky. So, is the "Rubber Duck" a good antenna, or a bad one? From a standpoint of convenience and compactness, it can't be beat! But, as an efficient radiator, it stinks!

For a base antenna, several choices are available. The most commonly used base antenna on 2m and 70cm is the old standby, the J-Pole. It is rugged, efficient, easily and cheaply constructed from readily available materials, and lightweight. Other commonly used base antennas are the "Ringo" (Registered trade mark) vertical, the quarter-wave ground plane, and the 5/8 wave ground plane. All of these are very satisfactory for working into repeaters and directly with mobiles. For more advanced operation, multi-element beams are available for use with a rotor and mast or tower. For operation with mobiles or repeaters, these beams should be vertically polarized. Some Hams who go in for D-X'ing on VHF or UHF used high-gain horizontally polarized beams. (More on this in a future article).

When we decide to go "Mobile" on 2m or 70cm, we have a much better choice of antennas, and several very efficient antennas have been developed for mobile use. The most widely used mobile antennas for 2m and 70cm are the quarter-wave dipole, the 5/8 wave dipole, and the J-Pole. The quarter-wave and the 5/8 wave must be worked against an effective metallic ground plane, usually the vehicle body. The J-Pole, while somewhat longer than either a quarter-wave or 5/8 wave antenna, does not need a ground plane, therefore it is well suited for use on fiberglass or plastic vehicles, which are becoming more and more prevalent these days. The quarter-wave antenna for 2m is about 20 inches long, including mount. The 5/8 wave antenna is about 48 inches, and the J-Pole is about 60 inches. All of these antennas are readily available with either magnetic mounts or may be mounted by drilling a hole in the vehicle. Of course, the magnetic mount is totally useless with a fiberglass or plastic body, but these antennas may possibly be mounted using double-face tape or similar adhesive mounts. Another possibility with smaller antennas is the "Through-Glass" mount, which entails using metal disks glued to the inside and outside of a vehicle window. While this is widely used with Cell-Phone antennas, it has not found widespread use with Ham antennas, due to the size and bulk of the latter.

The location on the vehicle has quite a bit to do with the success of an antenna. The best all-around location for coverage in all directions is in the center of the roof, but this is sometimes difficult if the vehicle is garaged or driven under parking decks at shopping malls, etc. However, many Hams, including this writer, enjoy considerable success with mounting antennas on the front or rear corner of the car. By using a simple L-shaped bracket, the antenna can be fastened to the hood or trunk lip of the vehicle with a couple of sheet metal screws, and will leave no holes visible from the outside when the antenna is removed. This method is especially suitable for J-Pole antennas, as it results in a lower overall profile while still keeping the main radiating portion of the antenna above the mass of the vehicle. There is also a special mount made that will clamp an antenna to the center of the trunk lid, but special care must be taken to assure a good ground to the rest of the vehicle body, or performance and noise pick-up will suffer.

That's about enough for this month, so next month we will take up the subject of High Frequency (H-F) antennas, for both base and mobile use.

RARS NEW MEMBERS

MARCH 2003

We would like to welcome our new members to RARS. Thank you for considering us for your amateur radio club.

Gil Bryant KG4YJG (joined last month but didn't have a call sign)

Andy Liepins N4NOY

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WHAT HAPPENS TO THE NET REPORTS?

By Mary KG4OQA

The net reports that are printed every month in the Exciter are just a part of a bigger report that gets sent to ARRL Headquarters by Don Negus N0SU, Section Traffic Manager for North Carolina. The ARRL then sends this information to the state and federal authorities. Keep in mind that every time you check into a net you are adding to these numbers. As RARS net manager, I send Don our totals for each month and he adds them to the other 13 nets in NC that report to him. According to Negus, "The important thing to remember is that it is this public service activity which justifies the use of all the frequencies we have at our disposal. Please pass on to your net members the gratitude of the National Traffic System and please keep up the good work." The totals for the state of NC for 2002 are as follows:

Sessions: 4538
Checkins: 59,537
Traffic brought: 9849
Traffic passed: 8673
Minutes: 75,632

NET REPORTS FOR February, 2003

- ♦ 8:00PM DAILY: RARS Evening Net
- ♦ 9:00PM MON: SWL SIG
- ♦ 8:30PM SAT : Tech & Traders net

Total Net Activity:

Minutes: 581
Check-Ins: 388 in 28 Sessions
Traffic : 19 brought 18 passed

After a long tenure of service as the Wednesday evening net control station for the 8 PM RARS Two Meter Net, Ralph KF4NIR is stepping down. Many thanks to Ralph for his great work as NCS - we will miss his enthusiastic and lively nets!

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MINUTES OF GENERAL MEETING MARCH 4, 2003

The meeting started off with the RARS 34th Birthday celebration, then was called to order at 7:50 PM by President Bernard Blackmon W4BRB.

New member was welcomed: Andrew N4NOY.

Treasurer's Report: Greg KE4PAX reported there are currently 292 members

Announcements (by W4BRB unless otherwise indicated):

Skywarn Spotters Training will be held on Mar 27th at 7:30 PM at Cary Sr. Center.

Need a volunteer to periodically run the ARRL News Hour as backup for Liz KF4UQZ.

Received an e-mail from Carl King KU4HM, thanking RARS for their support during his recent illness.

RARS Technican class of 7 started on Mar 3rd. Will continue on Mon and Thurs evenings for 6 weeks.

Hank K4HM reported on the status of Hamfest planning. Sign-up sheets available on the tables. Jeff AC4ZO has tickets for sale, and they are also available online at the RARS website.

The following annual awards were presented:

Plaques:

Bob Breyer K1RCB, for serving as RARS Vice President during 2001-2002.

Charlie Brown W4VFJ, for serving as RARS VE Team Leader during 1999-2002.

Certificates of Appreciation:

Liz Stanley KF4UQZ, RARS Net Manager in 2002

Tom Brown N4TAB, ARRL Section Emergency Coordinator

Mark Gibson N4MQU, Heavy ARES Communications Contributor

David Marable KD4WQU, Triangle Public Service Event Coordinator

Jim & Beth Carroll, N4CAE & KF4QMR, Hosted RARS Field Day on their property many times

Kerrell Watts W4KGL, RARS Field Day Setup/Handyman for several years

Bob Rinn N4VQN, RARS Hamfest Treasurer for several years

Rick Merkle KA3PSK, RARS Hamfest Contest Coordinator for several years

Sue Parks W2GHK, RARS Hamfest ARRL Booth Staffer for several years



Photos By Denyse KG4CXR

Kitty Hawk DXpedition

By Ed WA4PEN

Nearly thirty years ago in late December 1973 (between Christmas and New Years day), Al Clement, WA4DKZ, President of **RARS**, organized and accompanied a group of club members to Kitty Hawk NC to hold a commemorative DXpedition in honor of the Seventieth anniversary of the Wright Brothers and their (and mankind's) first powered flight. Al felt that since the 100th anniversary was only a mere 30 years away, that this would be a good time to stimulate some additional interest and enthusiasm for the occasion.

Bob Corns, K4MC, managed to "borrow" a cottage on the beach to provide housing for the crew and stations. HF and 2 meter antennas were raised and secured in place, while stations were being set up. A typical field day operation was used except for the use of a generator which was unnecessary since AC power was available. A special call was negotiated with the FCC by Stu Meyers (SK), W2GHJ/4, who had previous experience with DXpeditions and special calls. The call issued was KH4NCA (Kitty Hawk For North Carolina Aviation)

There were approximately 10 crew members participating who operated in shifts to provide each with operating time and rest when needed. It was discovered that many of the crew were quite expert as cooks as well as in radio operation. One of the local hams, Lynn Pendelton, K4NYV, visited and later became a very active member of RARS. Bill McDowell, K4CIA, a prominent DXer, was a major operator then, too! The event seemed well received by hams in general, many of whom seemed unaware of that bit of aviation history. Special QSL cards were printed by Bob Workman, WA4ZZN, and sent to all contacts desiring them. Although the actual count cannot be recalled, it was a well participated event.

As the actual 100th anniversary approaches (Dec. 2003), one wonders if the club will find the motivation to repeat such an activity later on this year.

TIME TO TAKE COVER

By Johnny WA9SZL

When the call came, I was already on the road! The storm front was black and green and boiling. Lightning flashed nonstop. You could read a newspaper by the light.

WA9SZL, this is K9YJW John, where are you?

This is WA9SZL, Don, I am at I-69 North of I-465 about 10 miles. Don, things are getting ugly up here!

WA9SZL, we have reports of funnel clouds to your southwest. Be ready to take cover.

Roger that Don. I have moved under the overpass, the hail is golf ball size now!

This is K9YJW, John a tornado warn---

John this is Dave, look out you have company!

K9YJW this is WA9SXL tornado on the ground about 500 yards south!

Getting out of the car with that, yours truly, bailed out and hit the road side ditch, hail, water and all. About 2 minutes later wet, and cold, I was back in the car.

K9YJW this is WA9SZL, Don this thing was mean and nasty!!

John are you alright? Yes Don, the car is beat up and about 25 feet from where I left it, but still driveable. Anyway, the storm is still on the ground, do you want me to follow it?

WA9SZL this is K9YJW, John are you nuts? Stand down. You just gave 2 counties the warning to duck this thing. No need to stick your neck out any more than you have.

K9YJW break! this is W9CGI.

Go Dave K9YJW. Thanks Don, WA9SZL, W9CGI, John we were running to the basement when I called you direct over the repeater. You needed some warning also. The tornado took my barn and the carport, and all the trees but we are all OK here. Do you need any help with your car?

W9CGI this is WA9SZL. Well not yet Dave. The hail knocked out the rear lights, both side mirrors and the back window glass, also it was wild watching the wind blow the car around 3 times with all 4 wheels off the ground! But it left the headlights on, so I can get it home. This is K9YJW, John, go home! and watch TV or something ok? Roger Don, I will be monitoring the frequency, call me if you need me. WA9SZL is out.

It took over an hour to go 25 miles home. The storm was violent, and downed trees and power lines, along with flash floods made it a long dark drive home. The wife was still up, watching the news on the battery TV, the children were in bed. They had spent evening in the basement, listening to me and the weather spotters on the scanner radio. Carolyn gave me a big hug, and then asked me why we all went out into weather that has everyone else running for cover? My answer was the only one that can only be given by people that volunteer for things that are dangerous, someone has to holler duck, and give the warning out. Before a lot of people get hurt. Another long hug, let me know that things were ok. We must all give of ourselves without any thought of the danger in order to know why we are the image of God.

**The Central Carolina
Skywarn Net Meets
Tuesdays at 9:15 PM
on 146.88 Repeater**



Remember to give damage reports AFTER the storms as well as DURING the storms.



Photo by Denyse KG4CXR

SKYWARN MONTHLY DINNER MEETING

By Denyse KG4CXR AEC Skywarn Wake County

The Skywarn dinner was held in Clayton with our new severe weather coordinator Jeff Orrock. He answered questions and told about the upcoming spring weather.

MARCH 30, 2003 will be our next Skywarn dinner at Golden Corral in the Cary Centrum Shopping Center on Walnut Street in Cary. Time will be from 5pm -7pm.



Every Wednesday 9:30 145.19



**Join Us At the
RARS Dinner**



**On 4th Tuesday, 6:30 pm at
Fat Daddy's on Glenwood Ave.**

HAMFEST CALENDAR

APRIL 13	RALEIGH,NC
April 5	Union, SC
April 19	Morganton, NC
May 10	Durham, NC
May 16-18	Dayton, OH
May 17	Williamston, NC
June 7	Winston-Salem, NC

Courtesy of the SERA Repeater Journal





RARS SOCIAL

It's almost time for the RARfest and the great Social Dinner Saturday night before the fest. Please start thinking about what great dish you can bring to our social. The date is April 12, 2003. We start serving about 6:00pm.

See more details inside.